

EAA Andrology Training Centre
Centre Report

2022



Centre identification

Division of Endocrinology

Polytechnic University of Marche

Department of clinical and molecular sciences

Azienda Ospedaliera Universitaria delle Marche

Via Conca 71

60126, Ancona, Italy

https://ospedaliriuniti.etrasparenza2.it/archivio13_strutture_-1_8083.html

CENTRE REPORT

History of Centre

The history of andrology at Clinic of Endocrinology of Polytechnic University of Marche starts in 1995 with G. Balercia, whose activity of clinical care and research was initially under the direction of M. Boscaro.

From the first years of activity, our Centre showed strong interest in research of pathophysiology of fertility, especially for the effects of oxidative stress and the protective action of coenzyme Q on male fertility. A special attention was also paid to cytogenetics of male infertility (chromosome Y microdeletions, gene polymorphisms).

Later, the andrological ambulatory gained continuous experience in diagnostic and treatment of male sexual health problems (i.e. erectile dysfunction) and in 2002 Prof. Balercia was awarded as 'academicina' by the European Academy of Andrology.

Our Center is awarded as Training Centre in Andrology of the European Academy of Andrology from 2006.

Currently, the Centre is still directed by G. Balercia, who is also the Director of the Division of Endocrinology of the Polytechnic University of Marche (Azienda Ospedaliero Universitaria delle Marche) from 2013.

Organization of Centre

<p style="text-align: center;">Unit Name Division of Endocrinology Polytechnic University of Marche Department of clinical and molecular sciences AOU delle Marche</p>
<p style="text-align: center;">Director: Prof. Giancarlo Balercia</p>
<p style="text-align: center;">Staff (physicians) Prof. Giorgio Arnaldi Dr. Maurizio Cignitti Dr. Lara Giovannini Dr. Gianmaria Salvio Dr. Alessandro Ciarloni Dr. Michele Perrone Dr. Silvia Rossi Staff (laboratory) Nicola Delli Muti Polidori Anna Rita Vignini Arianna Sara Sacco</p>
<p style="text-align: center;">Clinical Services Outpatient Clinics for sexual medicine, couple infertility, sexual dysfunction, Scrotal, penile arteries and prostate ultrasound IUI</p>
<p style="text-align: center;">Diagnosis of infertility Counseling of infertile couple Ultrasound of male genital tract Semen analysis Microdeletions of Y chromosome</p>

Educational activities

The Clinic is associated to the School of Endocrinology of the Polytechnic University of

Marche for postgraduated in Medicine.

Research activities

Clinical research in hypogonadism, erectile dysfunction and male infertility

Clinical trials:

- MBGS205: A Phase IIb multicentre, double-blind, dose-ranging, randomised, placebo-controlled study evaluating safety and efficacy of BGS649 in male obese subjects with hypogonadotropic hypogonadism
 - CAH3003: A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Crinicerfont (NBI-74788) in Adult Subjects with Classic Congenital Adrenal Hyperplasia, Followed by Open-Label Treatment
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Clinical activities

Outpatients andrology activity

Hospitalization availability

Basic and advanced seminology laboratory (including ultrastructural analysis facility)

Molecular biology laboratory (Y-chromosome microdeletions analysis)

Diagnostic tools for erectile dysfunction

Sexological counselling

Name and address of Centre

Medical Andrology - Clinic of Endocrinology - Dept of Clinical and Molecular Sciences ,
 Polytechnic University of Marche, Azienda Ospedaliero Universitaria delle Marche,
 Ancona, Italy. Ph: +39.071.5963738 Fax: +39.071.887.300
 E.mail: andrologia@ospedaliriuniti.marche.it

Type of Centre

University
 University Hospital
 Private Centre

Other (please
 specify) _____

1. Director

Prof. Giancarlo Balercia

Academician Affiliated Member Clinical Andrologist

2a. Clinical responsible

Academician Affiliated Member Clinical Andrologist

2b. Clinical responsible

Academician Affiliated Member Clinical Andrologist

2c. Clinical responsible

Academician Affiliated Member Clinical Andrologist

3. Present Staff (*Senior Scientists*)

1) Name Giancarlo Balercia
Degree Medical Head, Full professor
Speciality Endocrinology

Academician Affiliated Member Clinical Andrologist

2) Name Giorgio Arnaldi
Degree Medical Head, Associate professor
Speciality Endocrinology

Academician Affiliated Member Clinical Andrologist

3) Name Maurizio Cignitti
Degree Medical Head, MD
Speciality Obstetrics and Gynecology

Academician Affiliated Member Clinical Andrologist

Insert any additional staff below (if required)

MD/Biologists/Chemists

1) Name Nicola Delli Muti
 Degree Biologist, PhD
 Speciality Biology
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

2) Name Gianmaria Salvio
 Degree MD
 Speciality Endocrinology
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

3) Name Lara Giovannini
 Degree MD
 Speciality Endocrinology
 Full time/part time Part time

Academician Affiliated Member Clinical Andrologist

4) Name Alessandro Ciarloni
 Degree MD
 Speciality Endocrinology
 Full time/part time Part time

Academician Affiliated Member Clinical Andrologist

5) Name Michele Perrone
 Degree MD
 Speciality Endocrinology
 Full time/part time Part time

Academician Affiliated Member Clinical Andrologist

6) Name Silvia Rossi
 Degree MD
 Speciality Endocrinology
 Full time/part time Part time

Academician Affiliated Member Clinical Andrologist

Insert any additional staff below *(if required)*

PhD Students

1) Name Gianmaria Salvio

Nurses

1) Name Maria Antonietta Turco

Laboratory Technicians

1) Name Nicola Delli Muti

2) Name Anna Rita Polidori

3) Name Arianna Vignini

3) Name Sara Sacco

Administrative Personnel

1) Name Luca Micelli

4. Clinical Activity

A. Outpatients: Consultations per year in the last 3 years

	2019	2020	2021
New patients	950	509	661
Follow-up patients	735	452	586

Type of patients in the last years (%)	2019	2020	2021
Infertility	395	196	237
Erectile dysfunction	550	202	480
Hypogonadotropic Hypogonadism	146	125	121
Klinefelter	52	30	52
Gynaecomastia	23	15	32
Varicocele	153	86	108
Cryptorchidism	25	32	45
Male sex accessory gland infections	15	7	33
Testicular tumours	0	1	15
Disorders of gender identity	2	2	6
Other	0	0	0

B. Ultrasound (testis, penile, prostate) *

	2019	2020	2021
Total	395	196	294
Controls	244	207	340

** performed at the Department of Radiology*

C. Andrological surgery procedures

	2019	2020	2021
Testicular biopsies	0	0	0
Varicocele ligation	58	22	37
Prostate biopsies	0	0	0
BPH	0	0	0
Prostate cancer	0	0	0
Vasectomy	0	0	0
Vaso-vasostomy	0	0	0
Other	0	0	0

5. A. Andrology laboratory activity

	2019	2020	2021
Semen analyses	573	395	550
Sperm antibodies	423	296	415
Seminal markers	23	32	25

5. B. Andrology laboratory activity

Sperm banking donors Yes No Sperm banking cancer patients Yes No **If yes:**

	2019	2020	2021
Number of samples			

5. C. Histopathological evaluation of biopsies Yes No 5. D. Reproductive Hormones Assays Yes No

If yes please specify type of assays and number of samples in the last year

During the last year about 3400 samples for FSH, LH, testosterone, SHBG or prolactin were measured by chemiluminescent immunoassays

5. E. Y chromosome microdeletions according to EAA/EMQN guidelines Yes No

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If yes number of tests in the past yearParticipation to the EAA quality control scheme? Yes No **If no**, specify if available in another lab of the same hospital Yes No Blood karyotyping Yes No **If no**, specify if available in another lab of the same hospital Yes No Other genetic tests (please specify)
CFTR, Androgen Receptor

6. Collaborations with other Clinical Units of the University/Hospital

IVF Unit

Yes

No

If yes please specify: Children, Endocrinology, IVF, Urology, Genetics, Pathology

Urology Clinic

Yes

No

Endocrine Clinic

Yes

No

Genetics Lab/Unit

Yes

No

Paediatric Unit

Yes

No

Central Hospital Laboratory

Yes

No

Private Centres

Yes

No

If yes please specify:

7. Clinical teaching activity

Duration of training (years):

	Number
A: Trainees in the last five years	15
B: Trainees who passed EAA-ESAU\exam for Clinical Andrologist in the last 5 yrs	0
C: Trainees working in the centre preparing to pass the EAA-ESAU examination	0
D: PhD Students	1
E: Medical Students	2
F: Other students (MSc)	1

8. Formal Andrology teaching program

Yes

No

If yes: specify duration (years/months):

Years

Months

	Hours of formal teaching per year	Professional training (weeks/months)
Medical Students	20	
PhD Students	40	
Post Graduate students	20	
Trainees		
Other degrees (please specify)		

9. Research Activity (maximum 1 page)

The scientific activities of our center involve several fields of andrology. Some activities were organized and developed locally with the support of Marche Polytechnic University. Others were developed in collaboration with national and international institutions to which data and/or biological samples were sent (or from which they were received).

Our main fields of research are:

- Androgen receptor gene polymorphisms: two original articles (10.1111/and.12119, 10.1007/s12020-014-0193-2) regarding the effects of CAG polymorphism on sperm motility were published in *Andrology* (IF 4.456) and *Andrologia* (IF 2.532); four papers regarding the effects of CAG polymorphism on male metabolism (10.1007/s11739-016-1479-6, 10.1007/s40618-014-0052-2, 10.1016/j.numecd.2014.02.016, and 10.1155/2013/816740) were published in *International Journal of Endocrinology* (IF 3.257), *Nutrition, Metabolism and Cardiovascular Diseases* (IF 4.222), and *Journal of Endocrinological Investigation* (IF 5.467).

- Role of endothelial dysfunction in andrological diseases: two original papers (10.1155/2018/3720813 and 10.1007/s40618-017-0671-5) regarding vitamin D levels and gonadal function were published in *International Journal of Endocrinology* (IF 3.257) and *Journal of Endocrinological Investigation* (IF 5.467). An original paper (10.1111/andr.13169) and a narrative review (10.3390/ijms22010418) regarding hyperhomocysteinemia and erectile dysfunction were published in *Andrology* (IF 4.456) and *International Journal of Molecular Sciences* (IF 6.208).

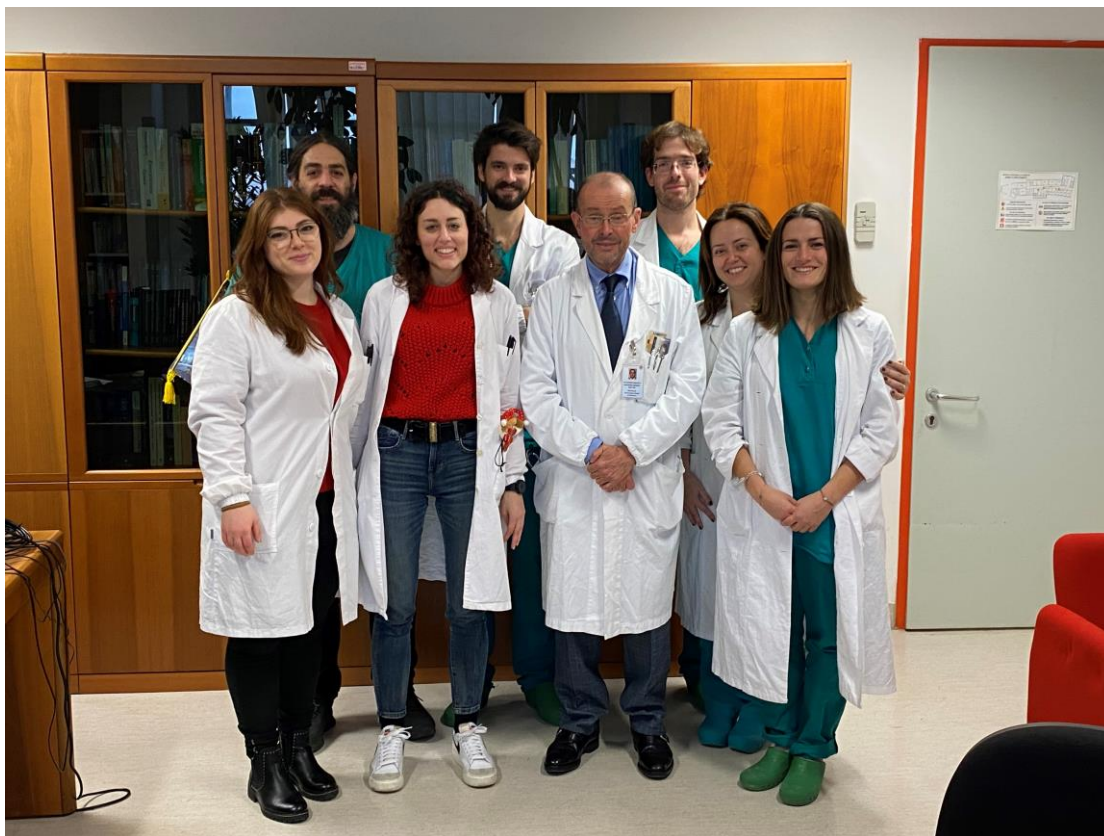
- Role of antioxidants in male infertility: several papers were published regarding the effects of Coenzyme Q10 treatment on male infertility, including two papers (10.1007/s12020-014-0432-6 and 10.1016/j.fertnstert.2008.02.119) published in *Endocrine* (IF 3.925) and *Fertility and Sterility* (IF 7.49), and a systematic review (10.3390/antiox10060874) published in *Antioxidants* (IF 7.675).

Our group also participates to collaborative national projects, including Klinefelter Italian Group (KING). Moreover, we contributed to the EAA Ultrasound study on healthy, fertile men, which results were recently published in *Andrology* (IF 4.456).

10. Research Funding

Please specify the amount of available funds in the last 3 years and their source (Government, European Union, University, Local Government, Pharmaceutical Industries, Banks, Foundations....)

Year	2018-2021
Total amount (€)	90.000
Funding Source(s)	Italian Ministry of Education; Italian Ministry of Heal; Polytechnic University of Marche

CENTRE PHOTOS

FULL LIST OF PUBLICATIONS (with IF) of staff members from the last 5 years

- 1: Vespa A, Giulietti MV, Fabbietti P, Di Rosa M, Gattafoni P, Sarzani R, Arnaldi G, Balercia G, Berardi R, Salvio G, Attademo L, Spatuzzi R. Structural Analysis of Social Behavior: Using Cluster Analysis to Examine Intrapsychic Personality Traits Associated With Depression in Women With Breast Cancer. *Cancer Control*. 2022 Jan-Dec;29:10732748221103327. doi: 10.1177/10732748221103327. PMID: 35968604; PMCID: PMC9379960. (IF 2.339)
- 2: Muscogiuri G, Altieri B, Annweiler C, Balercia G, Pal HB, Boucher BJ, Cannell JJ, Foresta C, Grübler MR, Kotsa K, Mascitelli L, März W, Orio F, Pilz S, Tirabassi G, Colao A. Vitamin D and chronic diseases: the current state of the art. *Arch Toxicol*. 2017 Jan;91(1):97-107. doi: 10.1007/s00204-016-1804-x. Epub 2016 Jul 18. PMID: 27425218. (IF 6.168)
- 3: Bonomi M, Rochira V, Pasquali D, Balercia G, Jannini EA, Ferlin A; Klinefelter Italian Group (KING). Klinefelter syndrome (KS): genetics, clinical phenotype and hypogonadism. *J Endocrinol Invest*. 2017 Feb;40(2):123-134. doi: 10.1007/s40618-016-0541-6. Epub 2016 Sep 19. PMID: 27644703; PMCID: PMC5269463. (IF 5.467).
- 4: Tossetta G, Fantone S, Delli Muti N, Balercia G, Ciavattini A, Giannubilo SR, Marzioni . Preeclampsia and severe acute respiratory syndrome coronavirus 2 infection: a systematic review. *J Hypertens*. 2022 Sep 1;40(9):1629-1638. doi: 10.1097/HJH.0000000000003213. Epub 2022 Jul 22. PMID: 35943095. (IF 4.776)
- 5: Lotti F, Frizza F, Balercia G, Barbonetti A, Behre HM, Calogero AE, Cremers JF, Francavilla F, Isidori AM, Kliesch S, La Vignera S, Lenzi A, Marcou M, Pilatz A, Poolamets O, Punab M, Godoy MFP, Quintian C, Rajmil O, Salvio G, Shaeer O, Weidner W, Maseroli E, Cipriani S, Baldi E, Degl'Innocenti S, Danza G, Caldini AL, Terreni A, Boni L, Krausz C, Maggi M. The European Academy of Andrology (EAA) ultrasound study on healthy, fertile men: An overview on male genital tract ultrasound reference ranges. *Andrology*. 2022 Oct;10 Suppl 2:118-132. doi: 10.1111/andr.13260. PMID: 35930758. (IF 4.456)
- 6: Giulioni C, Maurizi V, Castellani D, Scarcella S, Skrami E, Balercia G, Galosi AB. The environmental and occupational influence of pesticides on male fertility: A systematic review of human studies. *Andrology*. 2022 Oct;10(7):1250-1271. doi: 10.1111/andr.13228. Epub 2022 Jul 18. PMID: 35793270; PMCID: PMC9541307. (IF 4.456)
- 7: Shah R et al. ; Global Andrology Forum. Consensus and Diversity in the Management of Varicocele for Male Infertility: Results of a Global Practice Survey and Comparison with Guidelines and Recommendations. *World J Mens Health*. 2022 Jun 13. doi: 10.5534/wjmh.220048. Epub ahead of print. PMID: 35791302. (IF 6.494)
- 8: Lotti F, Frizza F, Balercia G, Barbonetti A, Behre HM, Calogero AE, Cremers JF, Francavilla F, Isidori AM, Kliesch S, La Vignera S, Lenzi A, Marcou M, Pilatz A,

- Poolamets O, Punab M, Godoy MFP, Quintian C, Rajmil O, Salvio G, Shaeer O, Weidner W, Maseroli E, Cipriani S, Baldi E, Degl'Innocenti S, Danza G, Caldini AL, Terreni A, Boni L, Krausz C, Maggi M. The European Academy of Andrology (EAA) ultrasound study on healthy, fertile men: Prostate-vesicular transrectal ultrasound reference ranges and associations with clinical, seminal and biochemical characteristics. *Andrology*. 2022 Sep;10(6):1150-1171. doi: 10.1111/andr.13217. Epub 2022 Jul 19. PMID: 35735741; PMCID: PMC9544532. (IF 4.456)
- 9: Salvio G, Ciarloni A, Cutini M, Delli Muti N, Finocchi F, Perrone M, Rossi S, Balercia G. Metabolic Syndrome and Male Fertility: Beyond Heart Consequences of a Complex Cardiometabolic Endocrinopathy. *Int J Mol Sci*. 2022 May 14;23(10):5497. doi: 10.3390/ijms23105497. PMID: 35628307; PMCID: PMC9143238. (IF 6.208)
- 10: Salvio G, Martino M, Balercia G, Arnaldi G. Acromegaly and male sexual health. *Rev Endocr Metab Disord*. 2022 Jun;23(3):671-678. doi: 10.1007/s11154-022-09721-0. Epub 2022 Apr 1. PMID: 35364803; PMCID: PMC9156476. (IF 9.306)
- 11: Salvio G, Gianfelice C, Firmani F, Lunetti S, Ferroni R, Balercia G, Giacchetti G. Remote management of osteoporosis in the first wave of the COVID-19 pandemic. *Arch Osteoporos*. 2022 Mar 2;17(1):37. doi: 10.1007/s11657-022-01069-x. PMID: 35235056; PMCID: PMC8889057. (IF 2.879)
- 12: Salvio G, Ciarloni A, Cordoni S, Cutini M, Muti ND, Finocchi F, Firmani F, Giovannini L, Perrone M, Balercia G. Homocysteine levels correlate with velocimetric parameters in patients with erectile dysfunction undergoing penile duplex ultrasound. *Andrology*. 2022 May;10(4):733-739. doi: 10.1111/andr.13169. Epub 2022 Mar 8. PMID: 35224883; PMCID: PMC9310719. (IF 4.456)
- 13: Delli Muti N, Finocchi F, Tossetta G, Salvio G, Cutini M, Marzioni D, Balercia G. Could SARS-CoV-2 infection affect male fertility and sexuality? *APMIS*. 2022 May;130(5):243-252. doi: 10.1111/apm.13210. Epub 2022 Mar 5. PMID: 35114008; PMCID: PMC9314998. (IF 3.428)
- 14: Agarwal A, et al.. Post-Vasectomy Semen Analysis: Optimizing Laboratory Procedures and Test Interpretation through a Clinical Audit and Global Survey of Practices. *World J Mens Health*. 2022 Jul;40(3):425-441. doi: 10.5534/wjmh.210191. Epub 2022 Jan 2. PMID: 35021311; PMCID: PMC9253792. (IF 6.494)
- 15: Gupta S, et al.. Antisperm Antibody Testing: A Comprehensive Review of Its Role in the Management of Immunological Male Infertility and Results of a Global Survey of Clinical Practices. *World J Mens Health*. 2022 Jul;40(3):380-398. doi: 10.5534/wjmh.210164. Epub 2022 Jan 1. PMID: 35021297; PMCID: PMC9253805. (IF 6.494)
- 16: Agarwal A., et al. Sperm Vitality and Necrozoospermia: Diagnosis, Management, and Results of a Global Survey of Clinical Practice. *World J Mens Health*. 2022

- Apr;40(2):228-242. doi: 10.5534/wjmh.210149. Epub 2021 Oct 13. PMID: 34666422; PMCID: PMC8987132. (IF 6.494)
- 17: Colonnello E, Limoncin E, Ciocca G, Sansone A, Mollaioli D, Balercia G, Porst H, Zhang H, Yu X, Zhang Y, Jannini EA. The Lost Penis Syndrome: A New Clinical Entity in Sexual Medicine. *Sex Med Rev.* 2022 Jan;10(1):113-129. doi: 10.1016/j.sxmr.2021.08.001. Epub 2021 Oct 5. PMID: 34620562. (IF 5.345)
- 18: Attia H, Finocchi F, Orciani M, Mehdi M, Zidi Jrah I, Lazzarini R, Balercia G, Mattioli Belmonte M. Pro-inflammatory cytokines and microRNAs in male infertility. *Mol Biol Rep.* 2021 Aug;48(8):5935-5942. doi: 10.1007/s11033-021-06593-6. Epub 2021 Jul 28. PMID: 34319544; PMCID: PMC8376712. (IF 2.742)
- 19: Martino M, Salvio G, Cutini M, Arnaldi G, Balercia G. COVID-19 and endocrine and metabolic disorders: critical points and suggestions for a correct therapeutic management from a tertiary endocrine center in Italy. *Minerva Endocrinol (Torino).* 2022 Mar;47(1):117-126. doi: 10.23736/S2724-6507.21.03523-5. Epub 2021 Jul 26. PMID: 34309348. (IF 2.184)
- 20: Salvio G, Martino M, Giancola G, Arnaldi G, Balercia G. Hypothalamic-Pituitary Diseases and Erectile Dysfunction. *J Clin Med.* 2021 Jun 9;10(12):2551. doi: 10.3390/jcm10122551. PMID: 34207687; PMCID: PMC8229897. (IF 4.964)
- 21: Salvio G, Cutini M, Ciarloni A, Giovannini L, Perrone M, Balercia G. Coenzyme Q10 and Male Infertility: A Systematic Review. *Antioxidants (Basel).* 2021 May 30;10(6):874. doi: 10.3390/antiox10060874. PMID: 34070761; PMCID: PMC8226917. (IF 7.675)
- 22: Sansone A, Mollaioli D, Ciocca G, Colonnello E, Limoncin E, Balercia G, Jannini EA. "Mask up to keep it up": Preliminary evidence of the association between erectile dysfunction and COVID-19. *Andrology.* 2021 Jul;9(4):1053-1059. doi: 10.1111/andr.13003. Epub 2021 Mar 30. PMID: 33742540; PMCID: PMC8250520. (IF 4.456)
- 23: Salvio G, Ciarloni A, Cutini M, Balercia G. Hyperhomocysteinemia: Focus on Endothelial Damage as a Cause of Erectile Dysfunction. *Int J Mol Sci.* 2021 Jan 3;22(1):418. doi: 10.3390/ijms22010418. PMID: 33401548; PMCID: PMC7795368. (IF 6.208)
- 24: Salvio G, Gianfelice C, Firmani F, Lunetti S, Balercia G, Giacchetti G. Bone Metabolism in SARS-CoV-2 Disease: Possible Osteoimmunology and Gender Implications. *Clin Rev Bone Miner Metab.* 2020;18(4):51-57. doi: 10.1007/s12018-020-09274-3. Epub 2020 Sep 1. PMID: 32904892; PMCID: PMC7459260. (IF 2.14)
- 25: Finocchi F, Pelloni M, Balercia G, Pallotti F, Radicioni AF, Lenzi A, Lombardo F, Paoli D. Seminal plasma miRNAs in Klinefelter syndrome and in obstructive and non-obstructive azoospermia. *Mol Biol Rep.* 2020 Jun;47(6):4373-4382. doi: 10.1007/s11033-020-05552-x. Epub 2020 Jun 1. PMID: 32488579. (IF 2.742)

- 26: De Rocco Ponce M, Foresta C, Rago R, Dal Lago A, Balercia G, Calogero AE, La Vignera S, Cosci I, Di Nisio A, Garolla A. Use of Biosimilar Follicle- Stimulating Hormone in Asthenozoospermic Infertile Patients: A Multicentric Study. *J Clin Med*. 2020 May 14;9(5):1478. doi: 10.3390/jcm9051478. PMID: 32423110; PMCID: PMC7291014. (IF 4.964)
- 27: Lotti F, Frizza F, Balercia G, Barbonetti A, Behre HM, Calogero AE, Cremers JF, Francavilla F, Isidori AM, Kliesch S, La Vignera S, Lenzi A, Marcou M, Pilatz A, Poolamets O, Punab M, Peraza Godoy MF, Rajmil O, Salvio G, Shaeer O, Weidner W, Maseroli E, Cipriani S, Baldi E, Degl'Innocenti S, Danza G, Caldini AL, Terreni A, Boni L, Krausz C, Maggi M. The European Academy of Andrology (EAA) ultrasound study on healthy, fertile men: clinical, seminal and biochemical characteristics. *Andrology*. 2020 Sep;8(5):1005-1020. doi: 10.1111/andr.12808. Epub 2020 Jun 1. PMID: 32353207. (IF 4.456)
- 28: Santi D, De Vincentis S, Alfano P, Balercia G, Calogero AE, Cargnelutti F, Coccia ME, Condorelli RA, Dal Lago A, de Angelis C, Gallo M, Iannantuoni N, Lombardo F, Marino A, Mazzella M, Pallotti F, Paoli D, Pivonello R, Rago R, Rampini M, Salvio G, Simoni M. Use of follicle-stimulating hormone for the male partner of idiopathic infertile couples in Italy: Results from a multicentre, observational, clinical practice survey. *Andrology*. 2020 May;8(3):637-644. doi: 10.1111/andr.12748. Epub 2020 Jan 7. PMID: 31872967. (IF 4.456)
- 29: Giulietti MV, Vespa A, Ottaviani M, Berardi R, Balercia G, Arnaldi G, Gattafoni P, Fabbietti P, Rosa MD, Spatuzzi R. Personality (at Intrapsychic and Interpersonal Level) Associated With Quality of Life in Patients With Cancer (Lung and Colon). *Cancer Control*. 2019 Jan-Dec;26(1):1073274819880560. doi: 10.1177/1073274819880560. PMID: 31775525; PMCID: PMC6883362. (IF 2.339)
- 30: Ciocca G, Zauri S, Limoncin E, Mollaioli D, D'Antuono L, Carosa E, Nimbi FM, Simonelli C, Balercia G, Reisman Y, Jannini EA. Attachment Style, Sexual Orientation, and Biological Sex in their Relationships With Gender Role. *Sex Med*. 2020 Mar;8(1):76-83. doi: 10.1016/j.esxm.2019.09.001. Epub 2019 Oct 10. PMID: 31607585; PMCID: PMC7042169. (IF 2.523)
- 31: Agarwal A, et al. Male Oxidative Stress Infertility (MOSI): Proposed Terminology and Clinical Practice Guidelines for Management of Idiopathic Male Infertility. *World J Mens Health*. 2019 Sep;37(3):296-312. doi: 10.5534/wjmh.190055. Epub 2019 May 28. PMID: 31081299; PMCID: PMC6704307. (IF 6.494)
- 32: Balercia G, Bonomi M, Giagulli VA, Lanfranco F, Rochira V, Giambersio A, Accardo G, Esposito D, Allasia S, Cangiano B, De Vincentis S, Condorelli RA, Calogero A, Pasquali D; KING group. Thyroid function in Klinefelter syndrome: a multicentre study from KING group. *J Endocrinol Invest*. 2019 Oct;42(10):1199-1204. doi: 10.1007/s40618-019-01037-2. Epub 2019 Mar 25. PMID:30912057. (IF 5.467)

- 33: Limoncin E, Gravina GL, Lotti F, Maseroli E, Ciocca G, Corona G, Maggi M, Reisman Y, Balercia G, Lenzi A, Jannini EA. The Masturbation Erection Index (MEI): validation of a new psychometric tool, derived from the six-item version of the International Index of Erectile Function (IIEF-6) and from the Erection Hardness Score (EHS), for measuring erectile function during masturbation. *BJU Int.* 2019 Mar;123(3):530-537. doi: 10.1111/bju.14560. Epub 2018 Oct 23. Erratum in: *BJU Int.* 2020 Sep;126(3):406. PMID: 30255975. (IF 5.969)
- 34: Tirabassi G, Sudano M, Salvio G, Cutini M, Muscogiuri G, Corona G, Balercia G. Vitamin D and Male Sexual Function: A Transversal and Longitudinal Study. *Int J Endocrinol.* 2018 Jan 8;2018:3720813. doi: 10.1155/2018/3720813. PMID: 29531528; PMCID: PMC5817208. (IF 2.803)
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